



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D2574

Job Sheet 182645



Part No: D2574

Job Qty: 10 ea

Part Name: Saddle, Aft, In



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 8/29/18

Job Tracking No:

Due Date: 9/21/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV F IPP Rev: I As Per RevE 06-01-27 JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea	9/21/18	9/21/18	0.00	0.00	Start Up Machining		SBZ 18/12/19
100	CNC Vertical Machining	10 pcs	9/21/18	9/21/18	1.21	15.63	HAAS 1		SBZ 18/12/19
110	Mill Conv	10 pcs	9/21/18	9/21/18	0.00	1.25	Mill Conv 1		SBZ 18/12/19
120	QC	10 pcs	9/21/18	9/21/18	0.00	0.00	QC2		SBZ 18/12/19
130	QC	10 pcs	9/21/18	9/21/18	0.00	0.00	QC8		SBZ 18/12/19
140	HandFinish	10 pcs	9/21/18	9/21/18	0.00	0.40	HandFinish1		SBZ 18/12/19
150	Powdercoat	10 pcs	9/21/18	9/21/18	0.00	0.33	Powdercoat1		SBZ 18/12/19
160	QC	10 pcs	9/21/18	9/21/18	0.00	0.00	QC3		SBZ 18/12/19
170	Packaging	10 pcs	9/21/18	9/21/18	0.00	0.00	Packaging3		SBZ 18/12/19
180	QC21-SA	10 Ea	9/21/18	9/21/18	0.00	0.00	QC21		SBZ 18/12/19

Part Op 100 - Program Batch No. 5136882 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets
Descriptions: 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets

110 - Machine keyway as per dwg D2573 & D2574

150 - START TIME: 7:40 FINISH TIME: 8:10 O.U.T: 320° M158951.

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-005	Saddle Billet	10 Ea (1 ea)	90-Start up Operation	51336-00

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6101-005	10	30	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Saddle, Aft Inboard	0.438Inches + 0.005 - 0.000	0.443 0.438		
2	Saddle, Aft Inboard	1.745Inches + 0.010 - 0.000	1.755 1.745		
3	Saddle, Aft Inboard	3.495Inches + 0.010 - 0.000	3.505 3.495		
4	Saddle, Aft Inboard	1.745Inches	1.755		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____	DISPOSITION Rework Scrap Use-as-is Suspected Unapproved
Part No. _____	
NCR No. _____	

Date : _____ Step #: _____

Description Work Order Deviation

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Part: D2574
Job No: 182645
Serial No/Batch: S136882
 Revision: Rev.F
 Inspector: _____
 Exp Date: _____
 Instructions: D2574 Rev C, sheets 1 - Date: 12/11/18



DART Aerospace Ltd.
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 Hawkesbury, ON K6A 1K7
 CANADA
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 www.dartaerospace.com

Approval

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER :							
Misidentified	☐	Past Due								

			+ 0.010	1.745
			- 0.000	
5	Saddle, Aft Inboard	7.990Inches	+ 0.020 - 0.000	8.010 7.990
6	Saddle, Aft Inboard	0.490Inches	+ 0.020 - 0.000	0.510 0.490
7	Saddle, Aft Inboard	0.257Inches	+ 0.005 - 0.000	0.262 0.257
8	Saddle, Aft Inboard	0.375Inches	+ 0.005 - 0.000	0.380 0.375
9	Saddle, Aft Inboard	0.490Inches	+ 0.020 - 0.000	0.510 0.490
10	Saddle, Aft Inboard	1.174Inches	+ 0.010 - 0.000	1.184 1.174
11	Saddle, Aft Inboard	0.558Inches	+ 0.020 - 0.000	0.578 0.558
12	Saddle, Aft Inboard	1.174Inches	+ 0.010 - 0.000	1.184 1.174
13	Saddle, Aft Inboard	1.365Inches	+ 0.010 - 0.000	1.375 1.365
14	Saddle, Aft Inboard	2.495Inches	+ 0.010 - 0.000	2.505 2.495
15	Saddle, Aft Inboard	4.119Inches	+ 0.010 - 0.000	4.129 4.119
16	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
17	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
18	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
19	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
20	Saddle, Aft Inboard	0.178Inches	+ 0.020 - 0.000	0.198 0.178
21	Saddle, Aft Inboard	3.210Inches	+ 0.040 - 0.000	3.250 3.210
22	Saddle, Aft Inboard	0.230Inches	+ 0.020 - 0.000	0.250 0.230
23	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
24	Saddle, Aft Inboard	0.307Inches	+ 0.005 - 0.000	0.312 0.307
25	Saddle, Aft Inboard	0.760Inches	+ 0.005 - 0.000	0.765 0.760
26	Saddle, Aft Inboard	0.352Inches	+ 0.020 - 0.000	0.372 0.352
27	Saddle, Aft Inboard	0.470Inches	+ 0.060 - 0.000	0.530 0.470
28	Saddle, Aft Inboard	0.615Inches	+ 0.020 - 0.000	0.635 0.615
29	Saddle, Aft Inboard	0.053Inches	+ 0.020 - 0.000	0.073 0.053
30	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
31	Saddle, Aft Inboard	1.500Inches	+ 0.020 - 0.000	1.520 1.500
32	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
33	Saddle, Aft Inboard	0.240Inches	+ 0.040 - 0.000	0.280 0.240
34	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
35	Saddle, Aft Inboard	2.000Inches	+ 0.020 - 0.000	2.020 2.000
36	Saddle, Aft Inboard	0.023Inches	+ 0.020 - 0.000	0.043 0.023

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DART AEROSPACE LTD	Work Order: 182 045
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. F	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		0.438	0.438	0.438	0.438		
B	1.745	1.755		1.75	1.750	1.750	1.750		
C	3.495	3.505		3.499	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.001	8.000	8.000		
F	0.490	0.510		0.500	0.502	0.501	0.500		
G	0.257	0.262		0.257	0.257	0.257	0.257		
H	0.375	0.380		0.378	0.378	0.378	0.378		
I	0.490	0.510		0.5003	0.5003	0.500	0.504		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.568	0.5675	0.568	0.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.125	0.125	0.125	0.125		
Q	0.115	0.135		0.125	0.125	0.125	0.125		
R	0.240	0.260		0.254	0.254	0.254	0.254		
S	0.115	0.135		0.128	0.128	0.129	0.128		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.228	3.228	3.228	3.228		
V	0.230	0.250		0.242	0.242	0.242	0.243		
W	0.115	0.135		0.135	0.132	0.135	0.135		
X	0.307	0.312		0.312	0.312	0.312	0.312		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.366	0.365	0.365	0.365		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.627	0.624	0.625	0.625		
AC	0.053	0.073		0.065	0.065	0.065	0.06		
AD	0.240	0.260		0.254	0.253	0.253	0.253		
AE	1.500	1.520		1.507	1.510	1.510	1.510		
AF	0.115	0.135		0.125	0.125	0.125	0.125		
AG	0.240	0.280		0.250	0.250	0.250	0.250		
AH	0.240	0.260		0.252	0.253	0.252	0.253		
AI	2.000	2.020		2.008	2.010	2.010	2.010		
AJ	0.023	0.043		0.033	0.033	0.03	0.03		
Accept/Reject									

Measured by:	DAS
Date:	57 18/12/19

Audited by:	
Date:	18/12/20

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

DART AEROSPACE LTD	Work Order: 182645
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. F	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	5 ¹	6 ²	7 ³	8 ⁴		
A	0.438	0.443		.438	.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.000	8.000	8.000		
F	0.490	0.510		.502	.501	.503	.502		
G	0.257	0.262		.257	.257	.257	.257		
H	0.375	0.380		.375	.375	.375	.375		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.567	.569	.567	.567		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		.130	.130	.130	.133		
Q	0.115	0.135		.125	.125	.125	.125		
R	0.240	0.260		.254	.253	.253	.253		
S	0.115	0.135		.125	.125	.125	.126		
T	0.178	0.198		.188	.188	.188	.188		
U	3.210	3.250		3.228	3.230	3.230	3.230		
V	0.230	0.250		.242	.241	.242	.243		
W	0.115	0.135		.133	.135	.133	.135		
X	0.307	0.312		.312	.312	.312	.312		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.367	.368	.368	.368		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.625	.624	.624	.624		
AC	0.053	0.073		.065	.065	.065	.065		
AD	0.240	0.260		.253	.253	.253	.253		
AE	1.500	1.520		1.510	1.510	1.510	1.510		
AF	0.115	0.135		.125	.125	.125	.128		
AG	0.240	0.280		.250	.255	.255	.255		
AH	0.240	0.260		.250	.250	.250	.252		
AI	2.000	2.020		2.000	2.000	2.000	2.000		
AJ	0.023	0.043		.033	.033	.033	.033		

Accept/Reject

Measured by:	DAS
Date:	57 18/12/19
	9-89

Audited by:	
Date:	18/12/20

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

DART AEROSPACE LTD	Work Order: 182645
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. F	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				9 1	10 2	11 3	12 4		
A	0.438	0.443		438	438	438	438		
B	1.745	1.755		1750	1750	1750	1750		
C	3.495	3.505		3500	3500	3500	3500		
D	1.745	1.755		1750	1750	1750	1750		
E	7.990	8.010		8000	8000	8000	8000		
F	0.490	0.510		500	500	500	500		
G	0.257	0.262		257	257	257	257		
H	0.375	0.380		378	378	378	378		
I	0.490	0.510		500	500	500	500		
J	1.174	1.184		1179	1179	1179	1179		
K	0.558	0.578		568	567	567	566		
L	1.174	1.184		1179	1179	1179	1179		
M	1.365	1.375		1370	1370	1370	1370		
N	2.495	2.505		2500	2500	2500	2500		
O	4.119	4.129		4124	4124	4125	4125		
P	0.115	0.135		130	130	130	128		
Q	0.115	0.135		125	125	125	125		
R	0.240	0.260		254	254	253	253		
S	0.115	0.135		125	126	126	122		
T	0.178	0.198		188	188	188	188		
U	3.210	3.250		3230	3230	3228	3228		
V	0.230	0.250		242	242	242	242		
W	0.115	0.135		130	129	130	130		
X	0.307	0.312		311	311	311	311		
Y	0.760	0.765		760	760	760	760		
Z	0.352	0.372		362	364	364	364		
AA	0.470	0.530		500	500	500	500		
AB	0.615	0.635		625	624	623	624		
AC	0.053	0.073		065	065	065	065		
AD	0.240	0.260		253	253	253	253		
AE	1.500	1.520		1510	1510	1510	1510		
AF	0.115	0.135		130	130	130	130		
AG	0.240	0.280		260	260	260	260		
AH	0.240	0.260		250	251	250	246		
AI	2.000	2.020		2000	2000	2000	2000		
AJ	0.023	0.043		033	033	033	033		

Accept/Reject

Measured by: DAS	
Date: 57	18/12/19
	3-89

Audited by: [Signature]	
Date: 18/12/20	

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	